

1096-03-1373

Maryanthe Malliaris*, Department of Mathematics, University of Chicago, 5734 S University Avenue, Chicago, IL 60637. *The asymptotic structure of unstable theories.*

The stable theories are of great significance to model theory, but there are comparatively few of them. To see gradations in complexity among the unstable theories from a more uniform point of view, ultrapowers are very useful, notably in the guise of Keisler's order. This order uses the criterion of saturation of regular ultrapowers to outline a large scale model-theoretic program of comparing the complexity of theories. Ultrapowers give a perspective in which local noise is smoothed out and the nature of the significant jumps in the complexity of pseudofinite structure can be more clearly seen. Very recent progress on this order, due to Malliaris and to Malliaris and Shelah, lays the groundwork for new dividing lines among the unstable theories, having no analogue in the stable case. This talk will present some highlights of this recent work from a model-theoretic point of view. (Received September 15, 2013)